Human VAP-1/AOC3 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF3957

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human VAP-1/AOC3 in direct ELISAs and Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant mouse VAP-1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*S. frugiperda* insect ovarian cell line *Sf* 21-derived recombinant human VAP-1/AOC3 Gly27-Asn763 Accession # Q16853
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

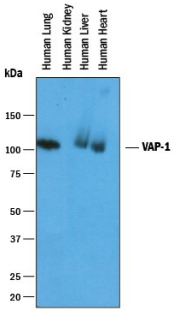
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Simple Western	10 µg/mL	See Below

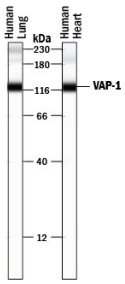
DATA

Western Blot



Detection of Human VAP-1/AOC3 by Western Blot. Western blot shows lysates of human lung tissue, human kidney tissue, human liver tissue, and human heart tissue. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human VAP-1/AOC3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3957) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # Catalog # HAF019). A specific band was detected for VAP-1/AOC3 at approximately 95-100 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western



Detection of Human VAP-1/AOC3 by Simple Western™. Simple Western lane view shows lysates of human lung tissue and heart tissue, loaded at 0.2 mg/mL. A specific band was detected for VAP-1/AOC3 at approximately 123 kDa (as indicated) using 10 µg/mL of Goat Anti-Human VAP-1/AOC3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3957) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

Vascular Adhesion Protein-1 (VAP-1) is a copper amine oxidase with a topaquinone cofactor. VAP-1 is a Type II integral membrane protein, but a soluble form of the enzyme is present in human serum, and its level increases in diabetes and some inflammatory liver diseases (1, 2). VAP-1 catalyzes the oxidative deamination of small primary amines such as methylamine, benzylamine, and aminoacetone in a reaction that produces an aldehyde, ammonia, and H_2O_2 (3). The enzyme is sensitive to inhibition by semicarbazide. VAP-1 expression is highest in the endothelium of lung, heart, and intestine, but low in tissues such as brain, spleen, kidney, and liver (4). VAP-1 vascular expression is regulated at sites of inflammation through its release from intracellular granules in which the protein is stored (5). The adhesive function of VAP-1 has been demonstrated in studies showing that the protein is important for the adherence of certain lymphocyte subtypes to inflamed endothelial tissues (6). VAP-1 mediated adhesion is involved in the process of leukocyte extravasation, an important feature of inflammatory responses. The role of VAP-1 amine oxidase activity in this process is not fully defined, but it appears to be carbohydrate-dependent (7). VAP-1 is considered to be a therapeutic target for diabetes, oxidative stress, and inflammatory diseases (8).

References:

1. Kurkijärvi, R. *et al.* (1998) J. Immunol. **161**:1549.
2. Gearing, A.J.H. and W. Newman (1993) Immunol. Today **14**:506.
3. Lizcano, J.M. *et al.* (1998) Biochem. J. **331**:69.
4. Smith, D.J. *et al.* (1998) J. Exp. Med. **188**:17.
5. Jaakkala K. *et al.* (2000) Am. J. Pathol. **157**:463.
6. Salmi, M. and J. Jalkanen (2001) Trends Immunol. **22**:211.
7. Salmi, M. and J. Jalkanen (1996) J. Exp. Med. **183**:569.
8. Dunkel, P. *et al.* (2008) Curr. Med. Chem. **15**:1827.

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